

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

EATON CORPORATION,)
)
 Plaintiff,)
)
 v.) C.A. No. 00-751-SLR
)
PARKER-HANNIFIN)
CORPORATION,)
)
 Defendant.)

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MEMORANDUM OPINION

Dated: January 15, 2003
Wilmington, Delaware

ROBINSON, Chief Judge

I. INTRODUCTION

On August 15, 2000, plaintiff Eaton Corporation filed this action against defendant Parker-Hannifin Corporation alleging willful infringement of U.S. Patent No. 5,226,682 ("the '682 patent"). (D.I. 1) On January 22, 2001, defendant answered the complaint asserting non-infringement and invalidity of the '682 patent. (D.I. 7) On August 7, 2001, plaintiff filed a first amended complaint adding allegations of willful infringement of U.S. Patent Nos., 5,553,895 ("the '895 patent") and 5,570,910 ("the '910 patent"). (D.I. 16) On August 24, 2001, defendant answered the first amended complaint and again asserted non-infringement and invalidity arguments with respect to the '895 and '910 patents. (D.I. 18)

The court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1338(a). Currently before the court are various motions for summary judgment. For the reasons that follow, the court will grant defendant's motion for partial summary judgment that claims 7-11 of the '682 patent are invalid (D.I. 72); deny plaintiff's motion for partial summary judgment that defendant's alleged "1989 Ford Offer" is not prior art (D.I. 75); grant plaintiff's motion for partial summary judgment that the patents in suit are valid with respect to defendant's alleged "Chiquita Coupling Design (D.I. 77); and deny plaintiff's motion for partial summary judgment of literal infringement of the patents

in suit (D.I. 79).

II. BACKGROUND

A. The Parties

Plaintiff is an Ohio corporation and the assignee of the '682, '895 and '910 patents. Utilizing the technologies of these patents, plaintiff manufactures and sells releasable, push-in coupling assemblies suitable for use in extreme commercial environments, i.e., high pressure, vibration, contamination, etc. These couplings may be used to connect two members together in a releasable but stable fashion. Plaintiff produces and markets a line of coupling assemblies called the Type I, Type II and Type II+ STC® couplings based on the inventions of '682, '895 and '910 patents respectively.

Defendant is also an Ohio corporation that manufactures and sells a diversified range of motion and control technologies and systems including fasteners and coupling assemblies. Defendant produces and markets the accused infringing devices, a line of coupling assemblies called the Generation I, Generation II and Generation III Perma-Push couplings.

B. The Technology

The technology at issue in this case generally relates to coupling assemblies used to securely connect two members together. In particular, the coupling assemblies include two members; a male member and a female member. To connect the

members, the male member is inserted into the female member which results in the two members becoming securely fastened together.

These couplings may be used to connect pipes, hoses, or other tube-shaped members together. Additionally, some embodiments may be used in high pressure, extreme temperature, high vibration, or other extreme environments. Industries such as the automotive, aerospace, or others that utilize hydraulic, pneumatic, or refrigerant systems are some examples of where this technology may be used.

C. The '682 Patent

The '682 patent entitled "Coupling Assembly" is directed to a coupling assembly utilizing an annular locking ring for connecting two members together. ('682 patent, col. 1 ll. 17-19) The '682 patent issued to Marrison et al. on July 13, 1993 with 16 claims. The specific claims at issue in this case are claims 7-11. Claim 7 is an independent claim, claims 8, 10 and 11 depend from claim 7, and claim 9 depends from claim 8.

D. The '895 Patent

The '895 patent entitled "Coupling Assembly" is directed to a coupling assembly utilizing a split locking ring for connecting two members together. ('895 patent, col. 1 ll. 15-23) The '895 patent may also be utilized to connect two members together and allow fluids to flow through them without leakage, particularly in high pressure environments. ('895 patent, col. 1 ll. 4-10)

The '895 patent issued to Karl et al. on September 10, 1996 with 45 claims. The claims at issue in this case are claims 1-3, 5-7, 27-29, 31-33, and 43-45. Claims 1, 27 and 43 are independent claims. Claims 2-3, 5-7, 28-29, 31-33, and 44-45 are dependent claims.

E. The '910 Patent

The '910 patent entitled "Coupling Assembly" is directed to a coupling assembly utilizing a locking ring retaining groove for connecting two members together. ('910 patent, col. 1 ll. 5-10) The '910 patent issued Highlen on November 5, 1996 with 19 claims. Claims 1-19 are at issue in this case.

III. STANDARD OF REVIEW

A court shall grant summary judgment only if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). The moving party bears the burden of proving that no genuine issue of material fact exists. See Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 n.10 (1986). "Facts that could alter the outcome are 'material,' and disputes are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct." Horowitz v. Fed. Kemper

Life Assurance Co., 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted).

If the moving party has demonstrated an absence of material fact, the nonmoving party then "must come forward with 'specific facts showing that there is a genuine issue for trial.'" Matsushita, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e)). The court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." Pa. Coal Ass'n v. Babbitt, 63 F.3d 231, 236 (3d Cir. 1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249 (1986).

If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. See Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986).

IV. DISCUSSION

A. Defendant's Motion For Partial Summary Judgment That Claims 7-11 of the '682 Patent are Invalid

Defendant argues that claims 7-11 of the '682 patent are invalid for failure to comply with the best mode requirement of

35 U.S.C. § 112, ¶ 1. (D.I. 72) This paragraph of § 112 states:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

“The purpose of the best mode requirement is to ensure that the public, in exchange for the rights given the inventor under the patent laws, obtains from the inventor a full disclosure of the preferred embodiment of the invention.” Dana Corp. v. IPC Ltd. P’ship, 860 F.2d 415, 418 (Fed. Cir. 1988). The best mode requirement of § 112 “requires an inventor to disclose the best mode contemplated by him, as of the time he executes the application, of carrying out the invention.” Bayer AG & Bayer Corp. v. Schein Pharms., Inc., 301 F.3d 1306, 1314 (Fed. Cir. 2002) (citation omitted). “The existence of a best mode is a purely subjective matter depending upon what the inventor actually believed at the time the application was filed.” Id. Because of the subjective nature of the best mode requirement, § 112 demands actual disclosure regardless of whether practicing that mode would be within the knowledge of one of ordinary skill in the art. Id.

In determining whether an inventor has disclosed the best mode, the Federal Circuit had adopted a two-part test. First, the fact-finder must determine whether, at the time of filing the

application, the inventor possessed a best mode for practicing the invention. Id. at 1320. If the inventor did subjectively contemplate a best mode, the fact-finder must then determine whether the inventor's disclosure is adequate to enable one of ordinary skill in the art to practice the best mode of the invention. Id.

Turning to the facts in this case, claims 7-11 of the '682 patent relate to a second of three embodiments disclosed in the patent. In support of its invalidity argument, defendant first cites to the inventor, David Densel's, invention record. At pages 7-8 of the invention record, the inventor shows a diagram illustrating the male member interlocked with the female member. (D.I. 74, Ex. 5) In the diagram, the inventor labels the angles of the shoulder of the male member and the chamfer of the female member. He then notes in the invention record:

The relation between angles E [the chamfer angle] and F [the shoulder angle] is critical to the function of the latch. Angle F should always be greater than angle E to obtain a wedging effect on the wire.

(D.I. 74, Ex. 5 at 8) The inventor then states:

The ideal design for a maximum wedging effect would be to have angle F be 90 degrees. However, since this is a latching mechanism, angle F must allow the wire to be pushed back over the ridge. In all designs tested to date, angle F has been 45 degrees and angle E has been 30 degrees. The axial forces generated by the 45 degree angle are greater than can be resisted by the 30 degree angle alone, and the vertical forces generated by the 30 degree angle are greater than can be resisted by the 45 degree angle alone.... If angle F is less than angle E the wedging effect will not be present....

(Id.)

Defendant next turns to Mr. Densel's deposition testimony where defendant's counsel asked Mr. Densel about the importance of the angles in the invention.

Q: Was the concept of the difference between the male and the female angles, the 30 and the 45 degrees so that you could wedge or better grip the ring lock, was that an important part of that coupler?

A: Of the designs that I did, yes, it was important.

* * *

Q: And that was the best way you could think of, of how to wedge that ring lock?

A: Yes. Yeah. At the time that's the best thing I could think of.

(D.I. 74, Ex. 6 at 5)

Plaintiff first argues that the "wedge effect" is disclosed in the patent with respect to the first embodiment. (D.I. 86) Plaintiff asserts that at column 2, lines 66-68, the statement "[t]he ring 40 is maintained in position by the resultant force of the angles located on the surfaces forming the cavity 28 and the groove 38 [sic groove], including the groove chamfer 39," discloses the "wedge effect" in the second embodiment. This argument is unavailing.

In its argument, plaintiff confuses the enablement requirement of § 112 with the best mode requirement. The enablement requirement ensures that a specification shall disclose an invention in such a manner as will enable one skilled

in the art to make and utilize it. Bayer AG, 301 F.3d at 1314. However, as the Federal Circuit has repeatedly emphasized, "the best mode requirement is separate and distinct from enablement and requires an inventor to disclose the best mode contemplated by him, as of the time he executes the application, of carrying out the invention." Id. (citation omitted). Thus, regardless of whether or not the disclosure in the first embodiment would enable one skilled in the art to manipulate angle F in order to be suitable for a releasable coupling, it still does not specifically disclose the inventor's best mode contemplated by him for the second embodiment, the subject of claims 7-11.

Next, plaintiff argues that Mr. Densel's use of 45 and 30 degree angles was not really his best mode, rather, he simply picked them because they "were standard angle increments and they worked for him." (D.I. 86 at 14) In support of this argument plaintiff points to Mr. Densel's deposition testimony:

Q: And that [using 45 and 30 degrees] was the best way you could think of, of how to wedge that ring lock?

A: I don't know. It's what I used and what worked for me.

* * *

Q: Where did you come up with the 45 and 30 degrees? Why were they chosen?

A: My first choice was I wanted to have two angles that converted [sic. converged?] to lock it in.

Q: Mm-hmm.

A: The second choice to choose the angles was because they were basically in 15 degree increments. It was the first choice to do two different angles at those even increments.

Q: And did you ever subsequently attempt to change those angles from the 45 and the 30 degrees?

A: I never did.

(D.I. 86 at 3)

Plaintiff's argument that this testimony shows that the angles were not really a best mode but merely a default that the inventor picked is unpersuasive. The testimony shows that not only were the 45 and 30 degree angles the best mode, but they were the only mode contemplated or used by the inventor. Plaintiff appears to take issue about how the inventor arrived at these numbers but that fact is irrelevant. The only angles the inventor tested, used, and disclosed in the invention record were 45 and 30 degrees. This was admittedly the only mode he knew of that "worked for him." Therefore, based on the uncontroverted record, the court concludes that there is no genuine issue of material fact that the inventor subjectively contemplated a best mode of converging angles of 45 and 30 degrees. However, the best mode inquiry does not end here. Once the fact-finder determines that the inventor did contemplate a best mode, it must then be determined whether the inventor's disclosure is adequate to enable one of ordinary skill in the art to practice the best mode of the invention. Bayer AG, 301 F.3d at 1320.

Reading the text the '682 patent, there can be no dispute that converging angles of 45 degrees for the shoulder of the male member and 30 degrees for the chamfer of the female member are not disclosed anywhere in the specification or claims of the '682 patent. Therefore, there is no genuine issue of material fact as to the second part of the best mode analysis. Consequently, the court concludes that defendant has shown by clear and convincing evidence that claims 7-11 of the '682 patent are invalid for failure to comply with the best mode requirement of 35 U.S.C. § 112, ¶ 1. Defendant's motion for partial summary judgment (D.I. 72) is granted.

B. Plaintiff's Motion For Partial Summary Judgment That the Patents in Suit are Valid With Respect to Defendant's Alleged 1989 Offer to Ford

Plaintiff has filed a motion seeking partial summary judgment that its patents in suit are valid with respect to defendant's alleged offer for sale of a releasable coupling to Ford Motor Company in 1989. (D.I. 75) In its brief, plaintiff spends most of its time arguing irrelevant sections of 35 U.S.C. § 102 when, as defendant admits, the only relevant section is § 102(b).¹ This section states that a person shall be entitled to a patent unless

the invention was patented or described in a printed

¹Plaintiff goes to great lengths to show the alleged 1989 offer to Ford is not prior art under §§ 102(a), (c), (d), (e), (f), or (g). The court will not address these arguments.

publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States....

35 U.S.C. § 102(b).²

The application of the on sale bar is a question of law. Brasseler, U.S.A. I, L.P. v. Stryker Sales Corp., 182 F.3d 888, 889 (Fed. Cir. 1999). In Pfaff v. Wells Electronics, Inc., 525 U.S. 55 (1998), the Supreme Court enumerated a two-part test to determine if the on sale bar applies. First, the product must be the subject of a commercial offer for sale and, second, the invention must be ready for patenting. Id. at 67. "The question of whether an invention is the subject of a commercial offer for sale is a matter of Federal Circuit law, to be analyzed under the law of contracts as generally understood." Group One, Ltd. v. Hallmark Cards, Inc., 254 F.3d 1041, 1047 (Fed. Cir. 2001).

Under plaintiff's statement of the facts surrounding defendant's alleged 1989 offer to Ford, Gerrard Vyse, an engineer at Parker-Hannifin, produced a "crude model" of a releasable coupling prior to the invention that resulted in the '682 patent. (D.I. 76 at 1) Approximately four to six prototypes of the model

²Since the subject of the alleged offer for sale is actually defendant's own product, for the purpose of this motion, the court must assume that defendant's product is actually the invention described in plaintiff's patents. In other words, this argument is relevant only if defendant's product ultimately is found to contain each limitation of at least one of the asserted claims.

were produced but they were neither tested or commercialized, rather, they were provided to a sales representative, Alfred Morelli, at Parker-Hannifin who sold products to the Ford Motor Company. (D.I. 88 at 2) Mr. Morelli then shared the prototypes and drawings with Ford engineers. Id. However, plaintiff argues that these prototypes were never tested, commercialized or sold.

In support of its argument plaintiff cites paragraph 7 of Mr. Morelli's declaration which states:

It was my expectation that if and when Ford elected to go forward with the releasable coupling product, we would quote a price very close to the existing price for the Quick Connect product since the releasable coupling was basically a modification of Quick Connect. To my disappointment, however, Ford elected not to develop the product further.

(D.I. 76, Ex. 12 at 2) Plaintiff asserts that this statement is dispositive and, in light of the statement, "it is impossible for Parker to prove that an offer for sale existed...." (D.I. 88 at 4)

Defendant, not surprisingly, paints a different story of the facts. According to defendant, Parker-Hannifin and Ford had an on-going supply relationship for non-releasable couplings since 1982. In 1989, Ford engineers advised defendant that they wanted a releasable coupler. At the request of Ford, Mr. Vyse came up with a product and provided it to Mr. Morelli to present to Ford for sale.

In support of its position, defendant first offers the

declaration of Mr. Morelli which states at paragraph 6:

Our hope and intent in providing Ford with drawings and a product was that Ford would determine that the product suited its needs and it would purchase the product in commercial quantities, just as it had been purchasing the Quick Connect product.

(D.I. 85, Ex. 12) Additionally, defendant proffers numerous design sheets, project status reports, and internal memoranda related to the Ford project to show the design of Mr. Vyse was ready for patenting and sale to Ford. (D.I. 85, Exs. 13, 14, 16, 17)

In a motion for summary judgment the movant bears the burden of proving that no genuine issue of material fact exists. Matsushita Elec. Indus. Co., 475 U.S. at 586 n.10. Furthermore, the court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." Pa. Coal Ass'n v. Babbitt, 63 F.3d 231, 236 (3d Cir. 1995).

Plaintiff has failed to show that there are no genuine issues of material fact with respect to the alleged 1989 Ford offer. Instead, plaintiff focused its arguments, at least the relevant ones, on defendant's inability to prove the 1989 event was a commercial offer for sale or ready to be patented by clear and convincing evidence. While this burden will be on defendant at trial, at this stage of the proceedings defendant only needs to show there is a genuine issue of material fact in order to

survive a summary judgment motion. Given defendant's statement of facts and supporting documents and plaintiff's failure to dispute them, and construing all reasonable inference in favor of defendant, plaintiff has failed to overcome its initial burden and, therefore, its motion (D.I. 75) is denied.

C. Plaintiff's Motion For Partial Summary Judgment That the Patents in Suit are Valid With Respect to Defendant's Alleged "Chiquita Coupling Design"

Plaintiff has filed a motion seeking partial summary judgment that its patents in suit are valid with respect to defendant's alleged offer for sale of a releasable coupling to Chiquita Brands in 1991.³ (D.I. 77) Again, for reasons unknown, plaintiff spends most of its time arguing irrelevant sections of 35 U.S.C. § 102 when, as defendant admits, the only relevant section is § 102(b).

The facts surrounding the 1991 Chiquita Coupling events are generally not in dispute. In 1991, defendant received a request from a Costa Rican company, Chiquita Brands, for a quote on a releasable coupling for an agricultural irrigation application in Costa Rica. (D.I. 78 at 1, 83 at 2) Keith Anderson, an engineer at Parker-Hannifin, was assigned the task of designing such a product. Although Mr. Anderson produced some drawings of the

³Again, for purposes of this argument, the court must assume that defendant's product is the "invention," i.e., that it contains each limitation of at least one of the claims asserted against defendant.

product, no actual product was ever built. Defendant asserts that the drawings, as part of a bid package and quote, were sent to Chiquita, however, due to the passage of time, defendant admits it cannot find or produce the actual bid package or quote materials. Instead, defendant relies on "contemporaneous reports" to show that the bid package and quote were actually produced and sent to Chiquita. (See D.I. 85, Exs. 15-18)

Plaintiff argues that these "contemporaneous reports" are nothing more than inadmissible hearsay evidence and, even if these materials were admissible, they do not constitute evidence of substantial prefatory sales activities in this country as required under § 102(b) where, as here, there was never an actual sale. (D.I. 89 at 1)

As discussed above, in a motion for summary judgment, the movant bears the burden of proving that no genuine issue of material fact exists. Matsushita Elec. Indus. Co., 475 U.S. at 586 n.10. With respect to this issue, the plaintiff has met its burden. The court concludes that there is no genuine issue of material fact as to the 1991 Chiquita events. Therefore, defendant "must come forward with 'specific facts showing that there is a genuine issue for trial.'" Matsushita, 475 U.S. at 587. If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as

a matter of law. See Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986).

With respect to the on sale bar, defendant must show by clear and convincing evidence that the 1991 Chiquita events constitute an offer for sale in this country. For the reasons that follow, defendant fails to make such a showing. As discussed above, in order for an event to trigger the on sale bar, a product must be the subject of a commercial offer for sale in this country. Pfaff 525 U.S. at 67. Where no actual sale ever occurs, this court has held that a product is not "on sale" in this country unless "substantial activity prefatory to the sale" occurs in the United States. B.F. Goodrich Co. v. Aircraft Braking Sys. Corp., 825 F. Supp. 65, 72 (D. Del. 1993) Furthermore, the substantial activity refers to sales activity, rather than to product development. Id.

In this case, even setting aside the hearsay issues, defendant's proffered evidence is insufficient as a matter of law to prove by clear and convincing evidence that the Chiquita coupling was the subject of a commercial offer for sale in the United States. The exhibits offered by defendant at best corroborate defendant's assertion that it developed a product in response to Chiquita's request. However, the proffered exhibits are lacking sufficient evidence that substantial prefatory sales activity, as opposed to product development, actually occurred in

the United States. Defendant argues that under this court's decision in B.F. Goodrich, an offer for sale can be communicated over the telephone. While this is true, in this case, as in the B.F. Goodrich case, defendant offers no evidence that any of the telephone discussions it claims occurred rose to a significant level (i.e., that an offer was made on the telephone). Therefore, the court will view any asserted telephone communications in the case at bar as standard sales activity, not rising to the level of sufficient prefatory activity in the United States. As such, plaintiff's motion for partial summary judgment that its patents in suit are valid with respect to defendant's alleged offer for sale of a releasable coupling to Chiquita Brands in 1991 (D.I. 77) is granted.

D. Plaintiff's Motion For Partial Summary Judgment of Literal Infringement of the '682, '895 and '910 Patents and For a Finding of Willful Infringement

Plaintiff moves for partial summary judgment of literal infringement and willful infringement of the patents in suit by defendant's Perma-Push line of products. (D.I. 79) In particular, plaintiff seeks summary judgment that defendant's accused products literally infringe claim 7 of the '682 patent, claims 1 and 6 of the '895 patent, and claim 1 of the '910 patent. (Id. at 3) The court will address each of plaintiff's arguments in turn.

1. Standards for literal infringement

A determination of infringement requires a two-step analysis. First, the court must construe the asserted claims so as to ascertain their meaning and scope. Second, the claims as construed are compared to the accused product. See K CJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1355 (Fed. Cir. 2000). Claim construction is a question of law while infringement is a question of fact. See id. To establish literal infringement, "every limitation set forth in a claim must be found in an accused product, exactly." Southwall Tech., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed. Cir. 1995). Occasionally, "the issue of literal infringement may be resolved with the step of claim construction, for upon correct claim construction, it may be apparent whether the accused device is within the claims." Multiform Desiccants, Inc. v. Medzam, 133 F.3d 1473, 1476 (Fed. Cir. 1998).

2. Claim 7 of the '682 patent

Since the court has previously determined that claim 7 of the '682 patent is invalid for failure to comply with the best mode requirement of 35 U.S.C. § 112, ¶ 1, it need not address this argument by plaintiff. Therefore, with respect to claim 7 of the '682 patent, plaintiff's motion (D.I. 79) is denied.

3. Claims 1 and 6 of the '895 patent

Plaintiff argues that defendant's Generations I, II and III Perma-Push couplings literally infringe claim 1 and Generation II

and III literally infringe claim 6 of the '895 patent. Claim 1 of the '895 patent is an independent claim and reads:

1. A coupling assembly for connecting two members comprising in combination:

(a) a split locking ring having a first end and a second end, said first and second ends being aligned to permit abutting engagement, said ring being expandable to define a gap between said first and second ends;

(b) a first member extending along an axis from a forward end toward a rearward position and having an exterior surface, a rib extending outwardly from said exterior surface, said rib including

(i) a ramp tapering outwardly in a direction away from said forward end and away from said axis at an angle in the range of 10° to 25° relative to said axis;

(ii) a cylindrical surface parallel to said axis extending rearwardly from said ramp a distance of at least 0.010 inch; and

(iii) a shoulder tapering away from said forward end and inwardly toward said axis, said cylindrical surface connecting said ramp and said shoulder; and

(c) a second member extending from a receiving end to a remote end including

(i) an inwardly facing cylindrical wall sized to received [sic] said first member including said rib and extending axially from a position closely adjacent said receiving end toward said remote end; and

(ii) an inwardly facing annular groove extending outwardly from said inwardly facing cylindrical wall, said split locking ring being receivable in said annular groove, **said annular groove having surfaces extending outwardly from said inwardly facing cylindrical wall including a first surface**

defining one portion of said groove and a second surface positioned between said first surface and said receiving end, said second surface including a chamfer tapering inwardly toward said axis in a direction toward said receiving end and being disposed at an angle relative to said axis which is smaller than the angle between said shoulder and said axis;

said first member and said second member being sized such that upon insertion of said first member into said second member, said split locking ring travels up said ramp to increase the size of said gap, over said rib cylindrical surface and contacts to reduce the size of said gap and to engage said shoulder becoming trapped between said shoulder and said chamfer.

'895 patent, col. 8 l. 31-col. 9 l. 9 (emphasis added). Claim 6

is dependant on claim 1 and claims:

6. The coupling assembly according to claim 1 wherein said shoulder tapers at an angle in the range of 35° to 55° relative to said axis and said chamfer tapers at an angle in the range of 20° to 40° relative to said axis.

'895 patent, col. 9 ll. 31-34.

Citing the language of claim 1 highlighted above, defendant argues that the claim defines the term "groove" to include the chamfer and that it requires both the first and second surfaces of the groove to extend outward from the cylindrical wall. (D.I. 82 at 17-18) Defendant then compares this recited structure to the structure of its accused Perma-Push products. Turning to the structure of the Perma-Push product, defendant asserts that its accused products include an intermediate surface parallel (i.e.,

not extending outwardly) to the cylindrical wall between the second surface and the chamfer. Therefore, the second surface of the accused products does not include a chamfer because of the intervening intermediate surface. Alternatively, even if the second surface includes the intermediate surface, the second surface then does not extend outwardly from the cylindrical wall because the intermediate surface runs parallel to the cylindrical wall. In either case, defendant argues that claim 1 does not read on its Perma-Push products.

Plaintiff refutes defendant's arguments by asserting that nowhere in claim 1 is there a limitation requiring the entire length of the second surface to extend outwardly from the cylindrical wall.⁴ Furthermore, plaintiff argues that defendant's characterization of the surface extending outwardly from the cylindrical wall on the left side of the groove in Figure 3A of the '895 patent as the first surface and the surface extending outwardly on the right side as the second surface, is not required by the claims. Rather, the chamfer shown in Figure 3A could be construed as the second surface and the surface extending outwardly on the right side could be the first

⁴The court disagrees. While the plain language allows for there to be more than two surfaces, the claim language means what it says, i.e., the first and second surfaces must extend outwardly from the cylindrical wall. If plaintiff's argument were correct, claim construction would be reduced to determining how much of a surface has to extend outwardly to literally satisfy the claim. The court declines to proceed down this path.

surface.⁵ Finally, plaintiff argues that regardless of how the phrase "second surface" is construed, the phrase "second surface including a chamfer" does not prevent the second surface from having features other than a chamfer, i.e., an intermediate surface.

Given the factual nature of determining literal infringement and the genuine disagreement over material facts with respect to claim 1, the court concludes that plaintiff is not entitled to entry of a summary judgment with respect to either claim 1 or claim 6. Therefore, plaintiff's motion (D.I. 79) with respect to the '895 patent is denied.

4. Claim 1 of the '910 patent

Plaintiff argues that defendant's Generations I, II and III Perma-Push couplings literally infringe claim 1 of the '910 patent. Claim 1 is an independent claim and reads:

1. A coupling assembly for connecting two members comprising:
 - a split locking ring having a first end and a second end, said first and second ends being aligned to permit abutting engagement;
 - a first member extending along an axis from a forward end toward a rearward portion and having an exterior surface;
 - a rib extending outwardly from said exterior surface of said first member, said rib including a ramp tapering in a

⁵The court finds that the phrase "second surface including a chamfer" precludes the chamfer from being the entire second surface; if this were the case, the term "including" a chamfer would be meaningless.

direction away from said forward end and away from said axis, said rib further including a cylindrical surface substantially parallel to said axis extending rearwardly from said ramp, said rib further including a shoulder tapering away from said forward end and inwardly toward said axis;

a second member having a leading end and a leading portion extending therefrom for receiving said first member, said leading portion having an inner surface;

a locking ring receiving groove defined by said inner surface of said second member, said retaining groove adjoining said receiving groove;

whereby upon insertion of said first member into said second member, said split locking ring travels up said ramp into said locking ring receiving groove, over said cylindrical surface and contracts to engage said shoulder and said locking ring retaining groove.

'910 patent, col. 5 ll. 35-64 (emphasis added).

Defendant argues that its products do not contain a "retaining groove" to retain a locking ring as required by claim 1. Rather, defendant's Perma-Push products utilize a chamfer to retain a locking ring. Furthermore, even if the chamfer can be considered a retaining groove, it does not adjoin the receiving groove since there is an intermediate surface between the receiving groove and the chamfer of the accused products.⁶ Defendant argues further that the locking ring in the accused product engages the chamfer, not a "groove" as required by the claim. Therefore, given the court's claim construction of the

⁶Plaintiff counters with the argument that the intermediate surface and the chamfer collectively constitute the retaining groove in the accused product and, as such, adjoin the receiving groove.

term "groove" as "a narrow furrow or channel," and "chamfer" as an "inclined surface," the two are different and there can be no literal infringement.

Based on its construction of the claim terms "groove" and "chamfer," the court concludes that plaintiff is not entitled to entry of a summary judgment of literal infringement. Therefore, plaintiff's motion (D.I. 79) with respect to the '910 patent is denied.

5. Willful Infringement

Since the court has declined to find literal infringement of any claims of the patents in suit at this juncture, it need not address the issue of willful infringement.

V. CONCLUSION

For the reasons discussed above, the court shall grant defendant's motion for partial summary judgment that claims 7-11 of the '682 patent are invalid (D.I. 72); deny plaintiff's motion for partial summary judgment that defendant's alleged "1989 Ford Offer" is not prior art (D.I. 75); grant plaintiff's motion for partial summary judgment that the patents in suit are valid with respect to defendant's alleged "Chiquita Coupling Design" (D.I. 77); and deny plaintiff's motion for partial summary judgment of literal infringement of the patents in suit (D.I. 79). An appropriate order shall issue.

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

EATON CORPORATION,)
)
 Plaintiff,)
)
 v.) C.A. No. 00-751-SLR
)
 PARKER-HANNIFIN)
 CORPORATION,)
)
 Defendant.)

O R D E R

At Wilmington this 15th day of January, 2003, consistent with the memorandum opinion issued this same day;

IT IS ORDERED that:

1. Defendant's motion for partial summary judgment that claims 7-11 of the '682 patent are invalid (D.I. 72) is granted.

2. Plaintiff's motion for partial summary judgment that defendant's alleged "1989 Ford Offer" is not prior art (D.I. 75) is denied.

3. Plaintiff's motion for partial summary judgment that the patents in suit are valid with respect to defendant's alleged "Chiquita Coupling Design" (D.I. 77) is granted.

4. Plaintiff's motion for partial summary judgment of literal infringement of the patents in suit (D.I. 79) is denied.

Sue L. Robinson
United States District Judge